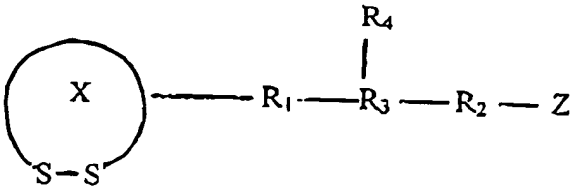
CLAIMS

1. A scavenger compound of the general formula I

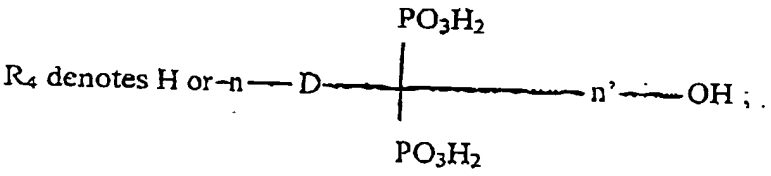


in which

X denotes a 4 - 10 memebered ring;

R_1 and R_2 are independently alkyl or alkylene;

R_3 denotes H, carboxy, amido, alkanol, amino, carboxyalcohol, alkanediol, amine alcohol, amine diol, thio or amine carbonyl;



n and n' are, independently, an integer from 0 to 8;

D denotes CH_2 or NH;

Z denotes a 4 - 10 memebered di sulfide ring or R_4.

and its salts.

2. A compound according to claim 1 wherein X denotes a 4, 5 or 6 membered ring and Z denotes a 4, 5 or 6 memebered di sulfide ring or R_4.

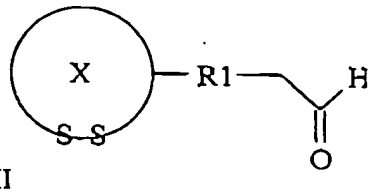
3. A compound according to claim 1 wherein R_1 and R_2 are C_{1-10} alkyls or alkylenes.

4. A compound according to claim 1 wherein R_1 or R_2 or both are substituted.

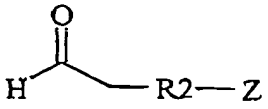
5. A compound according to claim 4 wherein R_1 or R_2 or both are substituted by substituents selected from the group consisting of halogen atoms, halomethyl groups, oxo, hydroxy, carboxy, caiboxyalkyl, alkoxy, alkoyl, alkoyloxy, aryloxy, aryloyl and aryloyloxy, amino, alkylamino, dialkylamino, cyano, azido and nitro,

thiol. alkylthiol. sulphonyl, sulphoxide, thienyl. furanyl, pyrrolyl, imidazolyl, pyrazolyl. thiazolyl. isothiazolyl, oxazolyl, pyrrolidinyl, pyrrolinyl, inlidazolidinyl, imidazolinyl. pyrazolidinyl. tetrahydrofuranyl, pyranyl. pyronyl, pyridyl, pyrazinyl, pyridazinyl. benzofuranyl, isobenzofuryl, indolyl. oxyindolyl. isoindolyl, indazolyl, indolinyl. 7-azaindolyl. isoindazolyl. benzopyranyl. coumarinyl, isocoumarinyl, quinolyl. isoquinolyl. naphthridinyl, cinnolinyl, quinazolinyl, pyridopyridyl, benzoxazinyl, quinoxadinyl. chromenyl, chromanyl, isochromanyl, carbolinyl, substituted or unsubstituted alkyl groups, and substituted or unsubstituted aryl groups.

6. A method for the preparation of a compound according to claim 1 comprising the step of performing reduction or oxidation of a compound of the general formula II



and a compound of the general formula III



in the presence of a reducing or oxidizing agent and a solvent.

7. A method for treating a patient afflicted with conditions associated with oxidative stress or free radical injury comprising the step of administering to the patient an effective amount of the compound according to claim 1.

8. A method according to claim 7 wherein with conditions associated with oxidative stress or free radical injury are selected from aging-mediated changes, pulmonary and ocular hypertension, asthma and other related respiratory diseases, trauma, neurotoxicity. neurological and neurodegenerative disorders, AIDS-related disorders, disorders of gastric acid and other secretary and peristaltic functions of the alimentary system, inflammatory bowel diseases (Crohn's disease and ulcerative

colitis), drug and disease-induced neuropathy and nephropathy, pathological and premature uterine contractions, chemotactic, phagocytic and other cellular defense impairment in immunological disorders, aggregation disorders, pregnancy-induced hypertension, cerebrovascular diseases, and male impotence.

9. A method according to claim 7 wherein the compound is administered orally.

10. A pharmaceutical composition comprising the compound according to claim 1 together with a pharmaceutically acceptable excipient.

11. Use of the compound according to claim 1 in the preparation of a medicament for the treatment of conditions associated with oxidative stress or free radical injury.

12. Use according to claim 11 wherein conditions associated with oxidative stress or free radical injury are selected from aging-mediated changes, pulmonary and ocular hypertension, asthma and other related respiratory diseases, trauma, neurotoxicity, neurological and neurodegenerative disorders, AIDS-related disorders, disorders of gastric acid and other secretary and peristaltic functions of the alimentary system, inflammatory bowel diseases (Crohn's disease and ulcerative colitis), drug and disease-induced neuropathy and nephropathy, pathological and premature uterine contractions, chemotactic, phagocytic and other cellular defense impairment in immunological disorders, aggregation disorders, pregnancy-induced hypertension, cerebrovascular diseases, and male impotence.